

## Fusion Aluminum Technical Information

Fusion is a proprietary infused color and coating process that is applied to Aluminum, as well as other substrates such as Glass, FRP, Ceramics, Wood and Fabric, to create unusual effects.

### Description

Item Shape	Flat sheet
Material	Aluminum 3003
	Aluminum 5005
Temper	H14
4' x 8' x .025"	11.35 lbs.
4' x 8' x .030"	11.89 lbs.
4' x 8' x .032"	14.59 lbs.
4' x 10' x .032"	18.23 lbs.
Width	48"
Length	96"
	120"
Specs	ASTM B209

### Mechanical Properties (ASTM B557)

Tensile Strength (ksi)		22.0
Yield Strength (ksi)		20.7
Elongation %		4.0
Taber Abrasion (ASTM D-1044)	CS-10 Wheel	500 g 10,000 cycles

### DETAILS

- Aluminum is in stock as 4' x 10' and 4' x 8' sheets.
- Finishes available include Gloss and Satin.

### Steam Test Results for Selected Items

Test EN 438-2:2005

NAME:	Mill Aluminum	White Aluminum
TYPE:	Satin	
THICKNESS:	.032"	.030"
RATING:	1	Pending
DATE:	7/12/11	

- Ratings: 5 No visible change.
- Slight change of gloss and/or color, only visible at certain viewing angles.
  - Moderate change of gloss and/or color.
  - Marked change of gloss and/or color.
  - Blistering and/or delamination.



**surface**  
materials

Design Beyond the Surface

Stain Resistance Testing		Rusts (on mill aluminum)		Woodgrains (on white aluminum)		Satin (on mill aluminum)		Gloss (on mirror aluminum)	
		24Hrs	7 Day	24Hrs	7 Day	24Hrs	7 Day	24Hrs	7 Day
1	Wesson Oil®	N	N	N	N	N	N	N	N
2	Household Ammonia	N	N	N	N	N	N	N	N
3	409 all purpose cleaner®	N	N	N	N	N	N	N	N
4	"Tide" laundry detergent	N	N	N	N	N	N	N	N
5	Isopropyl Alcohol	N	N	N	N	N	N	N	N
6	Bleach	N	S	N	S	S*	S*	N	N
7	Grape Juice	N	N	N	N	N	N	N	N
8	Orange Juice Concentrate	N	N	N	N	N	N	N	N
9	Coffee	N	N	N	N	N	N	N	N
10	Mustard	N	N	M	L	M	M	N	N
11	Ketchup	N	N	N	N	N	N	N	N
12	Red wine	N	N	N	N	N	N	N	N
13	Coca-Cola®	N	N	N	N	N	N	N	N
14	Water	N	N	N	N	N	N	N	N
15	Black crayon	N	N	N	N	N	N	N	N
16	Lipstick	N	N	N	N	N	N	N	N
17	Pine-Sol®	N	N	N	N	S*	S*	N	N
18	Vinegar	N	N	N	N	N	N	N	N

\* Note: "No change" to "slight change" seen, depending on color or pattern

**Key:**

N = no change  
S = slight change  
M = medium change  
L = large change

Abrasion Resistance Testing	# OF CYCLES	
	1ST WEAR POINT - all 4 quadrants	WORN ALL THE WAY THROUGH - all 4 QUADRANTS
SAMPLE		
Fusion Imaged Satin Aluminum	4000*	

**TESTING SPECIFICATIONS:**

Taber Abraser Model 5130  
500 g weight  
CS-10 Calibrase Wheel  
ASTM D-1044

\* no sign of wear

**CONDITIONS & WARRANTY**

Advanced Technology, Inc. believes all information contained herein to be correct. It is the responsibility of the fabricator/customer to completely test the adhesives and methods of fabrication to ensure that the results are satisfactory. ATI is not responsible for any fabrication or ancillary costs involved with using Fusion products.



All shipments are to be inspected within 10 working days after delivery. We are to be informed in writing of any potential adjustment necessary. The seller's only obligation will be to replace defective sheets on a one to one basis. Neither the manufacturer nor the seller shall be liable for any additional damage or loss, directly or indirectly, arising as a result of using Fusion products.

Slight imperfections and color variations from sheet to sheet are possible and considered normal. Please inspect each sheet carefully before fabrication to ensure it meets your needs.

**CAUTION**

**Fusion Aluminum and other metal laminates will conduct electricity. To avoid electrical shock and damage to equipment, please make sure that all electrical circuits, tools, and devices used with Fusion aluminum are properly grounded.**